

# Universal Design for Learning

## Part 1

**Principle I:** Provide Multiple Means of Representation






Office of the State Superintendent of  
Education

Department of Special Education  
Training and Technical Assistance

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This presentation was created based on the information and resources provided by the *National Center on Universal Design for Learning* and *National Institute for Urban School Improvement*

[www.udlcenter.org](http://www.udlcenter.org)

[www.urbanschools.org](http://www.urbanschools.org)

Save the Date!



Part 2 of 2

January 19, 2010

Van Ness Auditorium

8:30am-11:30am or

12:30pm-3:30pm





# Participants will be able to:

➤ Understand the concepts of

*Universal Design*

➤ Understand the framework of

*Universal Design for Learning*

➤ Utilize **Principle I** from the UDL Framework to modify curriculum and instruction to meet the needs of all their students.



# Essential Question:

How can we ensure that special education students receive a Free and Appropriate Public Education within the Least Restrictive Environment through the implementation of appropriate instructional practices?



# Agenda

- Introductions and Greetings
- Review Session Objectives
- History of Universal Design (UD)
- Activity One: Accessibility
- Activity Two: KWL
- What is Universal Design?
- Principle One: Provide Multiple Means of Representation
- Perception
- Activity Three:

Presentation RFBD

- Activity Four:

Group Work

- Group Presentation
- Questions

# Universal Design: **Foregrounding** Equity



People who are considered different by those in the majority have a long history of exclusion & denied access.

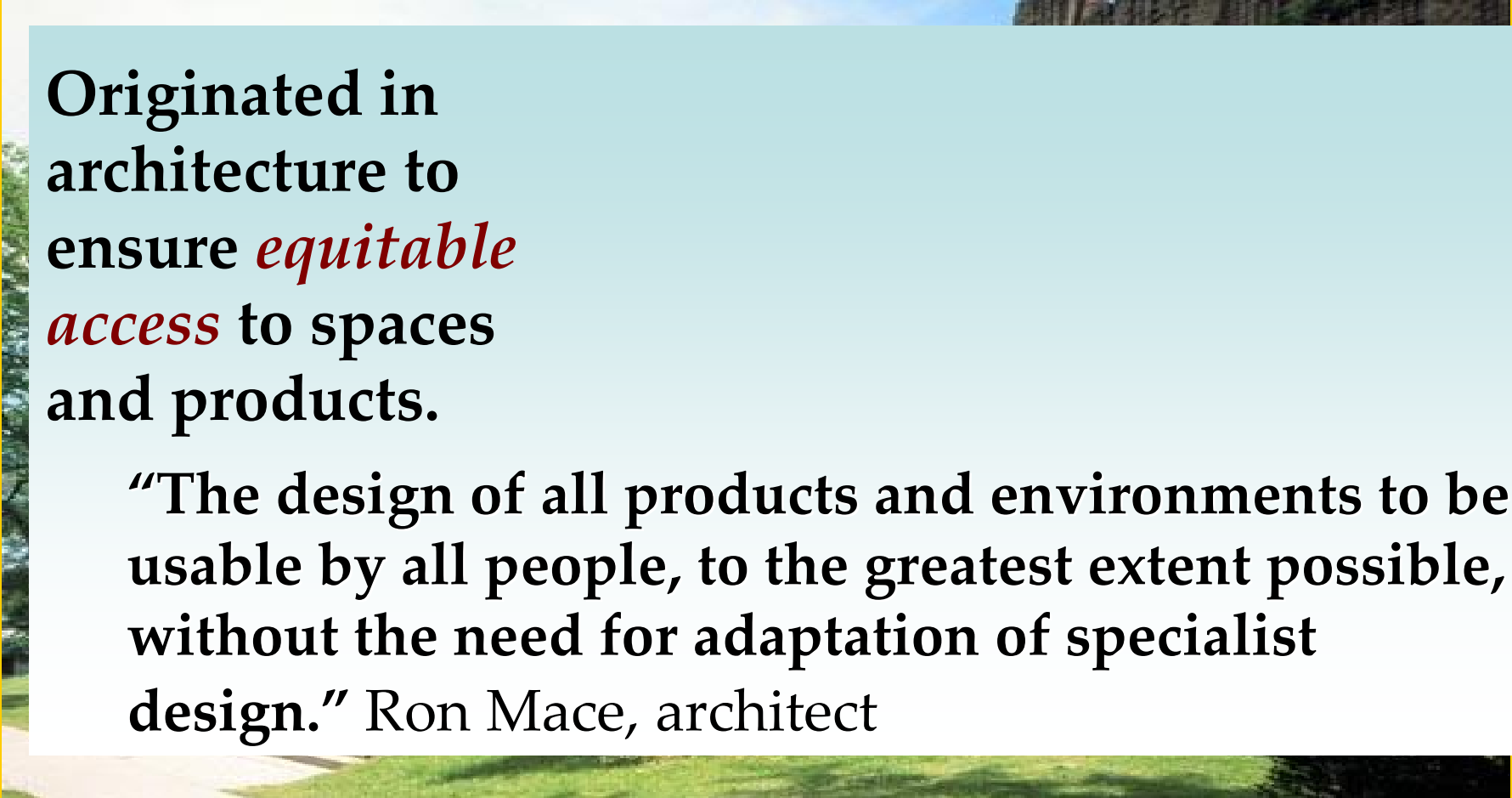


# Universal Design: Foregrounding Equity



Universal Design  
(UD) = Equitable  
opportunities &  
access to  
information &  
participation

# Universal Design (UD)

A background image of a paved path in a park, with green grass and trees visible on either side. The path leads into the distance under a clear sky.

Originated in  
architecture to  
ensure *equitable*  
*access* to spaces  
and products.

“The design of all products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation of specialist design.” Ron Mace, architect

## ...Foregrounding Culture



Our vision of UD is one in which the cultural and historical experiences of diverse individuals promote powerful possibilities for their access and participation in physical, social, and learning environments.



*Activity One:*

UD Accessibility



# Universal Designs (UD): Beyond Retrofitting



- “Considers the needs of the broadest possible range of users from the **beginning**.” Ron Mace, Architect (CAST, 2003 [www.cast.org](http://www.cast.org))
- We expand upon this view of UD by emphasizing:
  - **UNIVERSAL DESIGN:** not a “one-size fits all” approach
- UD addresses issues of inequity in our highly diverse society by...



*Activity Two:*

What is Universal Design for Learning ?



## UDL defined


Universal Design for Learning (UDL) is an approach to **learning that addresses** and redresses the primary barrier to making expert learners of all students: **inflexible, one-size-fits-all curricula** that raise unintentional barriers to learning.

**Learners with disabilities are the most vulnerable** to such barriers, but many students without disabilities also find that curricula are poorly designed to meet their learning needs.



# Universal Design for Learning





# Diversity is the norm, not the exception...

CAST (2008). Universal design for learning guidelines version 1.0



# Three primary principles guide UDL:

## Principle I:

Provide Multiple Means of Representation

## Principle II:

Provide Multiple Means of Expression

## Principle III:

Provide Multiple Means of Engagement



# Principle I: Provide Multiple Means of Representation

## **The "what" of learning**

- Students need multiple ways to approach content presented.
- Students need different ways to receive and process information.
- Information should be delivered according to the student's learning style.



## Principle II: Provide Multiple Means of Expression

### **The "how" of learning**

- Students must have various ways to navigate their learning environment and the material learned.
- Students must have various ways to demonstrate their level of mastery
- Students must have multiple opportunities to demonstrate their knowledge.





## Principle III: Provide Multiple Means of Engagement


### **The "why" of learning**

- Students level of engagement must remain high during instruction.
- Delivery of instruction must be centered around the student.
- Their unique personalities must be taken into account when determining how they will be motivated.



The goal of education in the 21st century is not simply the mastery of knowledge. It is the mastery of learning.

CAST (2008). Universal design for learning guidelines version 1.0



# Students who are Expert Learners are:

Strategic

Goal directed

Resourceful

Knowledgeable

Purposeful

Motivated



# Strategic and Goal Directed Students:


- Formulate plans for learning
- Devise effective strategies and tactics to optimize learning
- Monitor their progress towards mastery
- Are aware of their strengths and weaknesses
- Know how to abandon plans and strategies that are ineffective






# Resourceful and Knowledgeable Students

- Bring prior knowledge to new learning
- Know how to activate prior knowledge to:
  - Identify
  - Organize
  - Prioritize
  - Assimilate
- Recognize items in their learning “toolkits” that would help:
  - Find, structure, and remember new information
  - Transform new information into meaningful and useable knowledge




# Purposeful and Motivated Students

- Are focused on mastery instead of their immediate performance.
- Set learning goals for themselves.
- Monitor and regulate their emotions and reactions that would distract their learning.



Our curricula, rather than  
our students are disabled...

CAST (2008). Universal design for learning guidelines version 1.0



# Problem with most materials: Information is fixed and is created as if “one size fits all”.

Think about it...what could be wrong with the one size model for the following text:

- A web page
- Novel
- Social Studies Textbook
- Newspaper
- Movies
- Books on tapes

5 minutes

Share out



# Something to Think About!

The burden of adaptation should  
be first placed on the curriculum,  
not the learner.

CAST (2008). Universal design for learning guidelines version 1.0





Using **Universal Design for Learning** to ensure all curriculum is meeting the:

**Who**

**What**

**How**

of effective instruction.

*Which includes:*


Goals ↔ Objectives ↔ Plans  
Method ↔ Materials ↔ Assessments



*Today's Focus*

# Principle I

Provide Multiple  
Means of  
Representation



# Guidelines for Principal One

- Provide options for **perception**
- Provide options for **language and symbols**
- Provide options for **comprehension**



# Perception

To reduce barriers to learning it is important to ensure that key information is equally perceptible to all students by:

- Providing the same information through different sensory modalities (e.g. vision, hearing, or touch)
- Providing information in a format that will allow for adjustments by the user (e.g., text that can be enlarged, sounds that can be amplified)



## Customize the Display of **Written** Information:

- Multiply the text size
- Alter the text font
- Change the contrast between the background and text image
- Color code the material for emphasis or to assist students with tracking important information





## Customize the Display of Visual Information:

- Alter the speed or timing of videos, animation, sound, simulations, etc.
- Replay important sections of the video immediately
- Select sections of the video that meet the students needs and by-pass those that may cause confusion



## Customize **Auditory** Information:

- Allow the student to pause and replay information
- Support the auditory information with a visual representation
- Provide guidance and clarity for auditory information as the student receives it.
- Alter the prosody of the material being delivered
- Visual representation to cue new topic, change of information, etc.



# Perception



# *Activity Three*

Presentation from the

Recording For the Blind and  
Dyslexic

*Nena Moore*



# Language and Symbols

An important instructional strategy is to ensure that alternative representations are provided, not only for accessibility but for clarity and comprehensibility to all students.





# Clarifying Language

- Pre-teach vocabulary and symbols
- Build a relationship between vocabulary and symbols to base on the students prior knowledge and how it is different from their working definition (if relevant)
- Include vocabulary support within the assignment
- Show techniques to finding root or similar word patterns—word families
- Advise students of all unfamiliar words they will encounter during an assignment




## Clarify Syntax and Structure

- Explain the structure of graphic novel, magazine, newspaper etc.
- Explain graphs, charts and legends
- Simplify all text whenever possible
- Highlight important transition words and items that can be included on in a concept map



# Options for Decoding Text or Mathematical Notations

- Strategies for improving fluency depending on the subject area



## Options Cross-Linguistic Understanding

- Make all classroom materials available in English and support it in the student's native language.
- Give definitions for complicated words in English and native language.
- Define content specific language and ensure students can link it to some of the background knowledge.






## Options that Illustrate Key Non-Linguistic Concepts

- Use symbols to make connections while teaching unknown materials.
- Use pictures that will allow the students to make connections between what is being presented and their prior knowledge.
- Try to use illustrations to make connections between what is being taught to support visual learners.





# Language and Symbol



# Comprehension

- Constructing usable knowledge for future decision making
- Information processing skills
- Integrating new information with prior knowledge
- Strategic categorization
- Active memorization



# Activate Background Knowledge

- Allow students the opportunity to make connections between what is being taught and what they already know.
- Allow students the to chart background knowledge using graphic organizers.
- Determine what barriers and inequities exist within their prior knowledge that is critical to using new information (e.g., knowing the math rules, signal words, etc).
- Provide multiple opportunities for student to express relevant prior knowledge, or ways to link the background information.
- Pre-teach critical prerequisite concepts through demonstration or modeling.



# Highlight Critical Information

- Emphasize new information presented in the text, graphics, etc.
- Use examples and non-examples to emphasize critical information that is being presented.
- Reduce and remove (if possible) extraneous information.
- Teach students how to remove extraneous information.



# Guide Information that is Received

- Ensure that the information received is being processed in small chunks.
- Give students the opportunity to recall information that has just been taught.
- Ensure that information is presented in multiple ways.
- Promote steps in sequential process.






## Memory and transfer of information

- Teach students how to use checklist, post-its and other methods to remind them
- Opportunities to review and practice
- Use templates, graphic organizers, concept maps, etc.



# Activity Four:

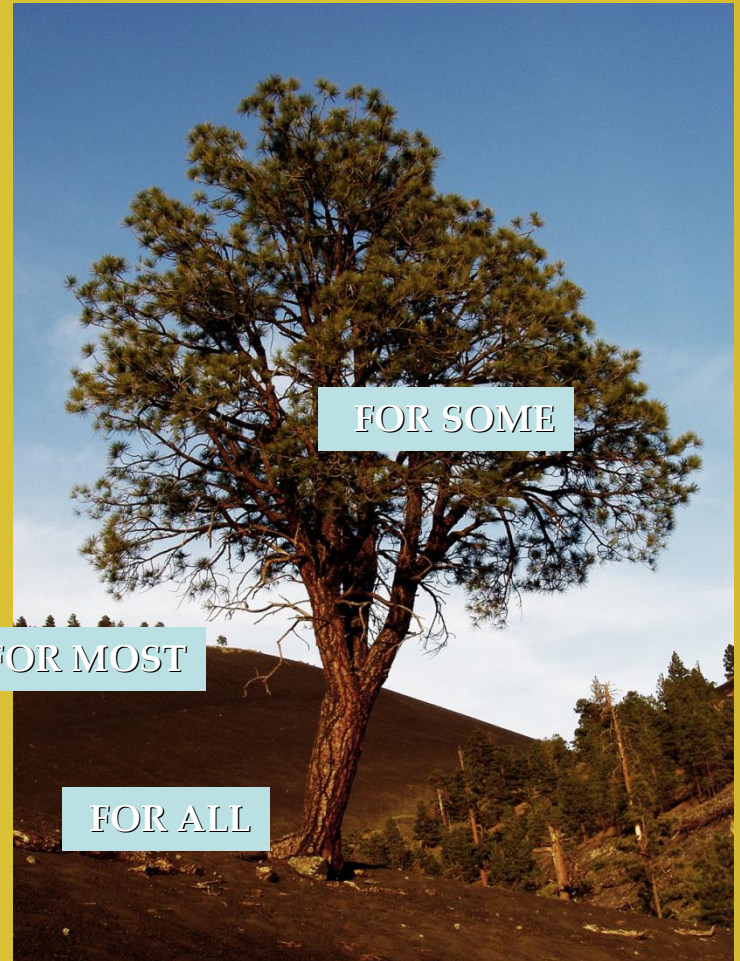
## Planning for Multiple Means of Representation



# Summary and Group Presentation

# Applying the Components of UDL Lesson Plans: For All, For Most, For Some

All students in any given classroom have access to the components of the lesson plan. This is represented by the underground roots and the tree trunk. Some students will choose or require additional elements (tree branches) and finally, some students will require the components leaves







# Questions and Answers





# Contact Information

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